Date: Sun,  5 Dec 93 04:30:14 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #133
To: Ham-Ant

Ham-Ant Digest              Sun,  5 Dec 93       Volume 93 : Issue  133

Today's Topics:

30m --> 10m dipoles ?
50 ohm coax to 75 ohm coax transformer
Are non-metallic cross booms necessary?
First antenna for 160 meters
Looking for Traps
Need info on mount/antenna
Opinions on Alpha-Delta DX-CC 80m-10m Inverted "V"
Phone No. for Andrew Cable wanted.
Rugged 2 meter antenn
Turnstile-Reflector

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party.  Your mileage may vary.  So there.
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Date: Sun, 5 Dec 1993 04:40:32 GMT
From: haven.umd.edu!darwin.sura.net!howland.reston.ans.net!spool.mu.edu!olivea!
pagesat!direct!herald.indirect.com!kg7bk@ames.arpa
Subject: 30m --> 10m dipoles ?
To: ham-ant@ucsd.edu

Kevin Anderson -7325 (gganderson@augustana.edu) wrote:
: Will a 30m dipole antenna (for 10.1 mhz) load up similarly on 10m?
: Just curious.     Kevin Anderson, KB9IUA

Hi Kevin, ELNEC says that a 47 ft long, 30 ft high, center-fed dipole
is resonant on 10.125 MHz with an impedence of 95 ohms, almost a 2/1
SWR with 50 ohm coax. On 28.4 MHz it has an impedence of 100-j370 and

an SWR of 30/1. On 29.6 MHz it has an impedence of 92-j200 and an SWR
of 11/1.

The way to remedy the problem is don't use coax... use ladder-line and
an antenna tuner and you will lose only about 1 db of your transmitter
output power in the antenna system even with a "high" SWR. 300 ohm ladder-
line will result in an SWR of about 3/1 on 30m and 5/1 to 10/1 on 10m
which is an easy match for my MFJ antenna tuner.

73, Cecil, kg7bk@indirect.com

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Date: Thu, 2 Dec 93 01:06:50 GMT
From: nntp.ucsb.edu!library.ucla.edu!europa.eng.gtefsd.com!howland.reston.ans.net!
newsserver.jvnc.net!a3bee2.radnet.com!cyphyn!randy@network.ucsd.edu
Subject: 50 ohm coax to 75 ohm coax transformer
To: ham-ant@ucsd.edu

Barker and Williamson makes a BROAD BAND  H.F.  50/75 ohm xformer...

Also, in the Amateur Radio Hand Book, they give plans for one....

Page 34*21    of the 1988 book has it all laid out in detail.

All one needs to do is to sub their own favourite connectors....
(just avoid BNC ones...too chinzy)

--
Randy KA1UNW              If you get a shock while
                         servicing  your  equipment,         "Works for me!"
randy@192.153.4.200             DON'T  JUMP!                     -Peter Keyes
                      You might break an expensive tube!

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Date: 2 Dec 93 00:35:03 GMT
From: pitt.edu!gvls1!hpwisf1.han.paramax.com!raichel@uunet.uu.net
Subject: Are non-metallic cross booms necessary?
To: ham-ant@ucsd.edu

 The latest AMSAT proceadings has an artical on this subject.
The authour said that if the elements are mounted 45 degrees from the
crossboom (look like an x instead of + when look at antenna from the
front or rear), then there is NO PROBLEM with using a steel cross boom,
and running the feed lines down the boom AS LONG AS the cross boom is
not mounted at points n*1/2 wavelengths from the feed point.

He shows charts of the metal boom running 0, 45 and 90 degrees, through the elements. At 0 and 90 degrees, there was LOTS of interfearence, while at 45 degrees, there was very little. This is because the metal boom is not in the same plane of EITHER of the two planes of elements.

He also shows charts saying that if the cross boom is mounted at multiples of 1/2 wavelengths from the driven element, even if it is not in the same plane as the elements (45 degrees), there wsa interfearance. There was minimal interferance if the boom was mounted anywhere else.

I can't remmember the exact title of the artical, or publication from AMSAT since I looked at a friends copy. :-) But I think that it was the latest AMSAT meeting proceadings. Check with AMSAT.

I have a pair of KLM 22CX and 40CX Oscar antennas on a 5 foot tripod with AZ/EX rotors on my roof. I use these antennas for both terestial and OSCAR work since I do not have enough room for two antenna systems. I have tried mounting the antennas at a 45 degree angle (x VS +) configuration. I found that the x configurations performed VERY POORLY in terestrial contacts (cross polarization?), but OK for OSCAR use. So I am stuck with using the + configuration which performed MUCH better for me, but REQUIRES a non conductive cross boom.

Phase II of my antenna project is to phase a PAIR of KLM 22CX and a PAIR of KLM 40cx antennas. This requires a 11-12 foot cross boom! Any suggestions where I can get a 1.5" or 2" 12 foot solid fiberglass rod that can support a 20 pound antenna in 70 MPH winds over a 6 foot unsupported span? That is why I was REALLY interested in the above artical!

My current crossboom is a 5' fiberglass rod. I cracked it a couple of months ago when the coax from the 40cx caught on a bolt on the tripod! I have shortened the coax, so I don't think that the problem will happend again. But I do not know how much longer the cracked fiberglass rod can hold out in the upcomming winter storms!

The coax (4XL) was not damaged because I have a ground wire attached to the boom of the antenna, and taped to the coax. Fortuantely, the 12 guage copper wire took most of the strain, and not the N connector on the coax! (The ground wire is there to hopefully, dissapate static charges, and hopefully ward off lightning strikes. I have never been hit by lightning so it must work right? :-) )

Thanks
alan

---

Name: Alan Raichel  If you think the answer is simple,

Call: N3IKI    then you probabaly don't understand
Inet: raichel@han.paramax.com  the question.
ICBM: 39'10' N  76'30' W  #include <std_disclaimer.h>

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Date: Thu, 2 Dec 1993 01:25:44 GMT
From: nevada.edu!jimi!envoy!equinox!arthurj@uunet.uu.net
Subject: First antenna for 160 meters
To: ham-ant@ucsd.edu

1. Hanging a full-size inverted vee with the apex near the top of the tower, i.e., 85 feet or so.

VERSUS

2. Putting up an inverted L. I could go up nearly 90 feet with the vertical part of this, would then have to angle back downwards with the remaining legth, coming either all the way back down to the ground, or perhaps to the top of a 40 foot mast. For the inverted L I would probably be able to install only two or three radials, and I live in the high deserts of northern Nevada where soil conductivity is poor.

My goal, initially, is to get a taste of the band and see if further antenna development work makes sense for me.

What would YOU do in my place?

Your comments would be gratefully received.

Thanks,
Art Johnson AA7UT

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Date: 4 Dec 1993 13:37:37 +0800
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!
newsserver.jvnc.net!newsserver.technet.sg!news.np.ac.sg!news.np.ac.sg!
news@network.ucsd.edu
Subject: Looking for Traps
To: ham-ant@ucsd.edu

I intend to build a multiband (10m, 15m and 20m) vertical using traps. It would be greatly appreciated if someone could let me know where I can buy ready-made traps, or I should make them myself. Thanks & '73s

de 9V1WI

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Date: Wed, 1 Dec 1993 23:36:45 GMT
From: psinntp!halon!sybase!srikant@uunet.uu.net
Subject: Need info on mount/antenna
To: ham-ant@ucsd.edu

Hello;

My Dad is a ham operator in India and has requested for prices of the following
equipment (both new and old):

 RSM 4R Guttermount (1 unit)
 M150GSX 1/4 wave mobile antenna (1 unit)

As I'm totally ignorant of whom to contact etc ... would appreciate knowing
the names of some reputable firms (dealing with new and used equipment).

Thanks.
--
Srikant Subramaniam.
srikant@sybase.com

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Date: Thu, 2 Dec 1993 11:49:19 GMT
From: ucsnews!newshub.sdsu.edu!usc!sdd.hp.com!nigel.msen.com!ilium!rcsuna.gmr.com!
kocrsv01!news@network.ucsd.edu
Subject: Opinions on Alpha-Delta DX-CC 80m-10m Inverted "V"
To: ham-ant@ucsd.edu

Hello,

I was just curious if anyone out there has had any experience (good
or bad) with the Alpha-Delta DX-CC 80m-10m inverted "V" antenna.


73's and Thank You
Keith Wolford - N9IXG

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Date: Thu, 2 Dec 1993 15:18:46 GMT
From: ucsnews!sol.ctr.columbia.edu!math.ohio-state.edu!magnus.acs.ohio-state.edu!
news.cic.net!condor.ic.net!iunet!grex!n8nxf@network.ucsd.edu
Subject: Phone No. for Andrew Cable wanted.
To: ham-ant@ucsd.edu

Could someone please post me the phone number for Andrew Cable?
The folks who sell Heliax, connectors, etc.  I want to get some
decent cable/connectors on a RF data link here.

Thank you!

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Date: 4 Dec 93 22:14:40 GMT
From: ogicse!emory!europa.eng.gtefsd.com!howland.reston.ans.net!
usenet.ins.cwru.edu!odin!trier@network.ucsd.edu
Subject: Rugged 2 meter antenn
To: ham-ant@ucsd.edu

I'm not sure that would work very well.  A bike isn't the right shape
and size to be an effective groundplane for 1/4 and 5/8 wave antennas.

I suppose it could work if you used radials, but they would be
awkward.  A half-wave whip or a J-pole might work better.

 Stephen

--
Stephen Trier  KB8PWA       "The light at the end of the tunnel
Work: trier@ins.cwru.edu     may be an oncoming dragon"
Home: sct@po.cwru.edu                          - Unknown

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Date: Fri, 3 Dec 1993 00:47:39 GMT
From: ucsnews!sol.ctr.columbia.edu!spool.mu.edu!howland.reston.ans.net!math.ohio-
state.edu!news.cyberstore.ca!nntp.cs.ubc.ca!unixg.ubc.ca!kakwa.ucs.ualberta.ca!
tribune.usask.ca!canopus.cc.@
Subject: Turnstile-Reflector
To: ham-ant@ucsd.edu

harper@huntsville.sparta.COM (Christie Harper) writes:

>Turnstile-Reflector

>References

>Satellite Experimenters Handbook (SEH)
>ARRL Antenna Handbook (AAH)

[...]

>The reflector consists of a wooden frame with wire screen

>(chicken wire, window screen...).  The AAH gives dimensions of
>4 feet on a side for 146 Mhz and suggests using 20 guage 1-inch
>mesh.

[...]

One reference I've seen (I can't find it of course) claims you need to
extend the reflector at least a half a wavelength past the end of the
turnstile elements. My somewhat limited experience with small reflectors
supports this. If you draw a side view of the turnstile reflector and plot
the part of the signal that bounces off the reflector on its way to the
underside of the turnstile when the satellite is at 30 degrees above the
horizon you'll see why.

So for a 146 MHz turnstile you would need a hunk of chicken wire at least 3
meters (9 feet) square. That's a big reflector. I've got a 4 meter (12 feet)
reflector for my VHF turnstile but I don't use the attic for anything
else...

--
Bruce Walzer |Voice: (204) 783-4983
Winnipeg MB  |Internet: bwalzer@lark.muug.mb.ca
Canada       |Amateur Radio: VE4XOR

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Date: Fri, 3 Dec 1993 11:02:05 GMT
From: ucsnews!sol.ctr.columbia.edu!howland.reston.ans.net!pipex!sunic!
news.funet.fi!news.cs.tut.fi!jps@network.ucsd.edu
To: ham-ant@ucsd.edu

References <1993Dec2.150441.24957@news.cs.tut.fi>,
<2dl7b4$5oh@bright.ecs.soton.ac.uk>, <Dec02.203026.84765@yuma.ACNS.ColoState.EDU>
Subject : Re: First antenna for 160 meters(continuously loaded???)

In article <Dec02.203026.84765@yuma.ACNS.ColoState.EDU>
galen@picea.CFNR.ColoState.EDU (Galen Watts) writes:
>I've thought about a continuously loaded (read: slinky style) vertical
>or possibly a cont loaded dipole for 160.  The dipole version could
>be made small enough to rotate!  Has anyone done something like this
>beyond the sparse articles in ARRL literature????

I am not expert on this but IMHO you can put normal dipole/inv vee(if
you have enough space for it) because if you cant put it high enough,
the radiation diagram for dipole remains a potatoe ;). So its same,
if you put gp or dipole. It get signals all around and turning is not
necessary. But the bigger dif. is if you can put real size antenna
instead of loaded.

>
>Just wondering,
>Galen, KF0YJ

If I am wrong dont kill me, Pleezzzz!
Jukka

--
** Jukka Salonen OH3NLP * E-mail: jps@cs.tut.fi ****************************
** Addr: Sorva ************************************************************
******** 37120 Nokia ********* Too old to Rock and Roll, too young to die.***
******** Finland ************************************************************

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End of Ham-Ant Digest V93 #133
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